

Title (en)

Gas turbine vane with improved cooling

Title (de)

Gasturbinenschaufel mit verbesserter Kühlung

Title (fr)

Aube de turbine à gaz dotée d'un refroidissement amélioré

Publication

EP 2256297 A1 20101201 (EN)

Application

EP 09160581 A 20090519

Priority

EP 09160581 A 20090519

Abstract (en)

The invention relates to a hollow gas turbine vane (1) that is cooled by an arrangement configured to sequential cooling an endwall (10) of the vane (1) and its airfoil (20) and, at the same time, the two endwalls (10,30) of the vane (1). This arrangement can reduce cooling air demand, which can have a positive effect on the turbines efficiency.

IPC 8 full level

F01D 5/18 (2006.01)

CPC (source: EP US)

F01D 5/186 (2013.01 - EP US); **F01D 5/188** (2013.01 - EP US); **F01D 9/02** (2013.01 - EP US); **F05D 2240/81** (2013.01 - EP US); **F05D 2260/201** (2013.01 - EP US)

Citation (applicant)

- US 7097418 B2 20060829 - TRINDADE RICARDO [US], et al
- EP 1221538 B1 20060503 - GEN ELECTRIC [US]

Citation (search report)

- [A] DE 2202858 B1 19730726 - BBC SULZER TURBOMASCHINEN
- [AD] EP 1221538 A2 20020710 - GEN ELECTRIC [US]
- [A] EP 1584790 A2 20051012 - GEN ELECTRIC [US]
- [A] US 5711650 A 19980127 - TIBBOTT IAN [CA], et al
- [A] EP 1136652 A1 20010926 - GEN ELECTRIC [US]

Cited by

US10739087B2; US9849510B2; US9976441B2; US10087776B2; US10184343B2; EP3112592A1; US10294800B2; US10253986B2; US10487660B2; EP3199761A1; US10851668B2

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DE

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